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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/612,048	07/03/2003	Beohm-Rock Choi	6192.0300.US	4287

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McGuire Woods
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EXAMINER

DINH, TRINH VO

ART UNIT PAPER NUMBER

2821

DATE MAILED: 05/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n N .	Applicant(s)	
	10/612,048	CHOI ET AL.	
	Examiner	Art Unit	
	Trinh Vo Dinh	2821	

-- The MAILING DATE f this communication appears on the cover sheet with th c rrespondence address --

P r i d f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on preliminary amendment filed 08/08/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawing

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign mentioned in the description: “300” in specification page 10. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claim 1 is objected to because of the following informalities:

In claim 1, line 17, “where in” should be changed to –wherein--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 16, “the third line” in the recitation “the eighth electrode being electrically connected to the third line” has no antecedent basis because there is no support for the limitation found in either claims or specification. The specification, page 11, line 17 states that the eighth electrode is electrically connected to the third electrode. For the purpose of examination, “the third line” is best understood by the Examiner as “the third electrode”.

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The deficiency is found in claims 8, 15, 22 and 29, which requires the same correction.

Claims 2-7, 9-14, 16-21, 23-28 and 30-32 are rejected because they are dependent on the rejected base claims 1, 8, 15, 22 and 29 respectively.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Okuda (USP 6,380,689 B1).

With respect to claim 29, Okuda discloses, in Fig. 7, an apparatus comprising
a timing control part (21, 22, 24) receiving an image signal and a control signal of the image signal to output first and second timing signals and a power control signal,
a column driving part (27) receiving the image signal and the first timing signal to output a data signal,
a row driving part (26) receiving the second timing signal to output a scan signal;
a power supplying part (28) receiving the power control signal to apply a voltage in accordance with the power control signal,
a data line (Bn) transferring a data signal, and a scan line (Am) transferring a scan signal,
a voltage applying line (C in Fig. 7) applying potential difference voltage applying line having

first and second ends (Fig. 7), the first and second ends being electrically connected to the power supplying part (28),

a switching device (31 in Fig. 10) having a first electrode (G of 31), a second electrode (S of 31), and a third electrode (D of 31), the first electrode being electrically connected to the data line (Bj), the second electrode being electrically connected to the scan line (Ai), the third electrode outputting the data signal,

an organic light emitting device (Ei,j in Fig. 10) having a fourth electrode (anode) and a fifth electrode (cathode), the fourth electrode being electrically connected to a reference voltage (to ground), amount of light generated from the organic light-emitting device having a relation to an amount of a density of a current applied to the organic light-emitting device.

a driving device (32) having a sixth electrode (S of 32), a seventh electrode (D of 32) and a eighth electrode (G of 32), the sixth electrode being electrically connected to the fifth electrode, the seventh electrode being electrically connected to the voltage applying line (C), the eighth electrode being electrically connected to the third electrode (D of 31) to receive the data signal.

With respect to claim 30, Okuda discloses, in Fig. 7, the voltage applying line (C) being in parallel to the data line (Bn).

With respect to claim 31, Okuda discloses, in Fig. 10, the voltage applying line (C) being in parallel to the scan line (Ai).

Allowable Subject Matter

7. Claims 1-28 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

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8. Claim 32 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of record fails to teach a light-emitting panel comprising a voltage applying line applying potential difference wherein the voltage applying line satisfies a following condition:

$$\frac{V(\max)}{n} < A \frac{\Delta VData}{GS} [\text{Volts}]$$

wherein V_{\max} is a maximum voltage drop, 'n' is a number of pixels that are electrically connected to the voltage applying line, 'A' is a correction coefficient that is in a range from about 1 to about 4, $\Delta vdata$ is a voltage difference between the gray scales, and GS is a number of gray scale as defined in claims 1 and 15, or

the voltage applying line satisfies a following condition:

$$\frac{L_v}{P(\text{White})} < \frac{(A \frac{\Delta VData}{GS}) - 0.00001}{\frac{0.5n}{2300}}$$

wherein L_v is a electrical resistance of the voltage applying line between the pixels, $P(\text{White})$ is a electrical resistance of the light -emitting device emitting white light as defined in claims 8 and 22, or the voltage applying line comprising a first layer and a second layer, the first layer comprising an alluminum-neodymium (AlNd), a thickness of the first layer being in a range from about 3,000Å to about 6,000Å, the second layer comprising a molybdenum-tungsten (MoW), a thickness of the second layer being about 500Å as defined in claim 32.

Inquiry

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong, can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'Trinh Vo Dinh', followed by a long horizontal line extending to the right.

*Trinh Vo Dinh
April 26, 2004*